

**STATEMENT OF
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**BEFORE THE
ENERGY AND COMMERCE COMMITTEE
SUBCOMMITTEE ON TELECOMMUNICATIONS AND THE INTERNET
UNITED STATES HOUSE OF REPRESENTATIVES
ON**

**HOW INTERNET PROTOCOL-ENABLED SERVICES ARE CHANGING THE
FACE OF COMMUNICATIONS: A LOOK AT THE VOICE MARKETPLACE**

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Chairman Upton, Ranking Member Markey, and Members of the Subcommittee; thank you for the opportunity to testify today regarding Internet Protocol Enabled Services and their affect on the voice marketplace. My name is Carl Grivner and I am CEO of XO Communications, one of the Nation's largest facilities-based providers of telecommunications and broadband services. Prior to joining XO as CEO in 2003, I served as Chief Operating Officer for Global Crossing and held various positions at telecommunications companies including Worldport, Cable & Wireless, and Ameritech.

Originally formed as Nextlink in 1996, XO has expanded its telecommunications offerings from its original 4 small markets to 70 metro area markets in 26 states today. Our company provides a comprehensive array of voice and data telecommunications services to small, medium, and large business customers. Our voice services include local and long distance services, both bundled and standalone, other voice-related services such as conferencing, domestic and international toll free services and voicemail, and transactions processing services for prepaid calling cards. XO data services include Internet access, private data networking, including dedicated transmission capacity on our networks, virtual private network services, Ethernet services, and web hosting services.

XO is not your average CLEC. In fact, we really don't view ourselves as such. XO's facilities and services have enabled us to develop into a National LEC. We are in the business of building the physical infrastructure this country needs in order to benefit from the extraordinary innovations that are transforming the way we communicate. XO has invested heavily in building its own facilities spending over \$8 billion and constructing

over 1.1 million miles of fiber. We have an extensive set of metro fiber rings to connect customers to our network, and we own one of the highest capacity and scalable IP backbones in the industry, capable of delivering data end-to-end throughout the United States at speeds up to 10 Gigabits per second. In building our networks, we have overcome obstacles city block by city block and office building by office building. Where the networks of yesterday use copper, we have installed fiber. Where the networks of yesterday use circuit switches, we have installed soft switches, optical switches, and the most efficient multiplexing technology. Finally, where landline network facilities are too expensive, we have invested heavily in wireless. XO is North America's largest holder of fixed broadband wireless licenses, covering the 27 GHz-32 GHz Local Multi-point Distribution Service, or LMDS spectrum.

IP Enabled Services

IP Enabled Services are, indeed, changing the voice and data marketplace. The Internet's explosive growth in recent years has focused intensive efforts worldwide on developing IP-based networks and applications. According to the Federal Communications Commission (FCC), roughly 32.5 million broadband lines connected homes and businesses to the internet as of June 30, 2004.¹

Over the past few years IP-based technologies have undergone rapid innovation. Many of these innovations have the effect of increasing the efficiency of the physical components

¹ See Federal Communications *Report on High-Speed Internet Access Services, December 2004*

of our network by increasing the effective capacity of networks for these types of applications. We believe that IP-based technologies will serve as the foundation of integrated networks that treat all transmissions — including voice, fax and video — simply as applications carried over an integrated transmission facility. Although not always the case, voice over IP, or VoIP, technology usually incorporates the quality of service necessary for commercial deployments and is increasingly price-competitive in terms of the equipment that is installed at the customer's premises. We expect that, over time, improved technology and the manufacture of sufficient volumes of equipment will make customer adoption of VoIP applications more prevalent.

XO recognized the value of IP-based technologies early on. We have invested a significant amount in this area. In fact, IP-based technologies are the single strongest pillar for the future of our company. As I mentioned earlier, we have deployed a large number of newly-developed packet-based switching technologies, including soft switch, optical and Ethernet switching. The soft-switch is a distributed computer system that performs similar functions to a circuit switch, but more efficiently. It can route and switch information at an extremely fast rate. In 2000, we began deploying softswitch technologies from Sonus Networks. Today, we have one of the largest deployments of Sonus softswitches in the country. Our softswitches serve forty-four markets and deliver more than 600 million minutes of customer long distance traffic each month across our national IP network.

Earlier this year, XO launched a new industry-leading bundled voice over Internet Protocol (VoIP) solution that will give business customers in Boston, New York City,

Washington DC, and Baltimore enhanced features, functionality and value for their voice and Internet services. Full nationwide availability is expected by mid-April. This service, called XOptions Flex is an integrated voice and data service delivered to a customer over one converged facility, providing for one invoice from one proven supplier with one point of accountability. XOptions Flex will be available for a flat monthly price and include over twenty standard voice applications and features for each phone line and offer dedicated Internet access up to 3 Mbps. The service allows for what is called Dynamic Bandwidth Allocation which allows customers to maximize the utilization of a T1 circuit by allocating bandwidth to data applications while voice lines are idle; in this case, voice will always have priority. This is very different from TDM applications that require the user to fix the bandwidth either for voice, or for data. In addition, this service will allow customers to make real-time changes to their services configuration. We are truly empowering end users to design and use their own services in a manner that has never been possible before.

Though overall pricing for VoIP offerings is comparable across the business market, we offer capabilities that other providers do not. First, we offer a true VoIP solution. Rather than simply providing IP based transport between traditional phones, or taking an IP signal only up to the switch, we enable our customers to experience true VoIP from origination to termination. Second, we provide these services over our own local networks and over our advanced internet backbone. This gives us the scalability needed to continue to increase future offerings without significant bandwidth constraints. Further investment

in compression technologies will bolster that ability. Third, we are nationwide, enabling coast-to-coast communication for our business customers.

From our perspective, this is only the beginning for VoIP and IP-enabled services. XO plans to continue to broaden its IP-based product portfolio this year and next to bring the benefits VoIP has to offer to an even larger market. We will build upon XOptions Flex to deliver enhanced features to larger and distribution organizations. As mentioned earlier, we expect customer adoption of VoIP applications to continue; especially as the quality of services offered increase and the costs of providing these services decrease. In 2004, the number of US business using VoIP grew to 12 percent, a substantial increase from just 3 percent in 2003.² We expect that to continue.

VoIP Regulatory Policies

It is important to note that companies like XO cannot offer these innovative services without access to so-called “last mile” bottlenecks. This is not because we would rather piggyback our services over someone else’s lines, on the contrary, we prefer to provide services over networks that we own and control. And we have demonstrated that preference consistently; given the billions of dollars we have invested in our own infrastructure make that abundantly clear.

² See "Business VoIP: An End-User's Perspective, 2004" (December 7, 2004). In-Stat/MDR

Unfortunately, the bandwidth requirements of most of our customers are moderate. We serve the long-neglected small and medium-sized businesses and the revenue opportunities associated with these types of customers are simply not large enough to justify construction of redundant loops. Moreover, building another connection to a customer building runs into a number of problems.

First is cost. A 500 ft “lateral” connection from an XO fiber ring to a customer building can cost at least a quarter of a million dollars, and that is if everything goes perfectly.

Second is time. It can take as long as 6 months to build another line to a customer building. Very few businesses are willing to wait that long for service.

The Third problem is local restrictions. The building owner may refuse to allow another line to connect to the premises. In addition, various municipalities can place restrictions on when and how you can construct a building connection.

In light of these inherent obstacles within the competitive industry, companies like XO are forced to lease many of these legacy “last mile” loops. This issue of loop access brings me to the discussion of what the public policy objectives should be in addressing VoIP. In the context of examining our telecommunications laws, I have heard two reoccurring comments from Members of Congress: the desire to (1) encourage and bolster facilities-based competition; and (2) maintain some form of regulatory certainty.

XO agrees both points. We took the intent of the 1996 Act to heart and built our own facilities to compete. We continue to invest and build and we are actively pursuing alternatives to “last mile” access through our broadband wireless licenses. On the second point, regulatory certainty is desirable for all industry participants in order to bring additional investment and growth to the sector; however, it depends on exactly what you mean by regulatory certainty. We don’t believe that regulatory certainty should mean eliminating current access requirements for incumbent telecommunications providers solely because IP based technologies are used. In fact, the same copper based T-1 lines that provide traditional voice are also used to provide VoIP services.

It is imperative that these policy goals be pursued in light of the specific circumstances of the telecommunications industry. considers public policy toward VoIP and its goals of encouraging investment and reducing regulation, it is important to keep in mind that the “marketplace” involves more than just residential telephone service. Most telecommunications discussions regarding regulation of IP-based services center around the looming “battle of the titans” between cable company facilities used for broadband and voice vs. telephone company DSL broadband and voice (as well as eventually video) in the residential market. In my opinion, this focus on the residential market is the primary driver behind the call for “regulatory parity”.

But, I must caution that policy makers keep in mind that two distinct types of markets exist in the telecommunications world: the residential market and the business markets. It

is very difficult to apply broad regulatory principles based on one vision of the marketplace. It may or may not be wise to rely on the presence of cable companies in the residential market as an adequate constraint on ILEC market power. But cable companies cannot be relied upon to bring competition to the business markets, because, as the FCC recently concluded, cable companies generally do not compete in the business market. Thus, to accept a duopoly as an inevitable “better than nothing” version of competition in the residential market, without engaging in a separate view of the business markets, will ultimately doom healthy competition in the business market.

XO Communications provides the perfect example of my point. We are a robust competitor investing billions of dollars in our network, creating jobs and consumer benefits in the process. XO focuses this investment on competing with the telephone companies in the business markets, not the residential market. In truth, the vast bulk of telecommunications usage and investment in this country is for business services. Individual consumer services are important, but it is the market for business telecommunications services that truly drives investment, growth, and innovation. Companies like XO are the key competitors in providing telecom services to businesses, especially the small and medium sized businesses that President Bush and most economists recognize to be the main sources of job creation and economic growth in America today.

Everyone here recognizes that competition is the key to stable telecommunications policy. However, there are critical government policies that must be clearly stated and vigorously enforced if competition is to continue to flourish.

Access to the so-called “last mile” must remain available for lease by competitors at reasonable rates and on reasonable terms. While XO strives to serve more customers entirely over its own network, the issues I mentioned previously (cost, build time, and local restrictions) make it economically prohibitive to build alternative “last mile” solutions in most cases

I would like to make a point, however, that loop unbundling does not mean heavy-handed rate regulation. We are not a “why buy the cow, when you can get the milk for free” company. Do we believe that unbundled access should continue indefinitely? I don’t believe that is prudent for the marketplace if it becomes feasible for competitors to build their own loops. However, as most of the Members of the Subcommittee know, the 1996 Act provided for a transition to facilities-based competition through Unbundled Network Elements (UNE) access. We’re working tirelessly to get there, but until the industry can figure a way to develop a commercially viable and more efficient system than the legacy copper lines that currently connect virtually every residence and business, we will continue to need access to these last mile bottlenecks.

This situation is not unique to the telecommunications industry. In the electricity industry, independent power producers must also access existing transmission facilities of incumbent providers in order to move their power to the consumer, and at just and reasonable rates.

In addition, telecom policy must include an extensive discussion on how to apply current social obligations to IP enabled services that may substitute for traditional voice. Like other carriers, XO pays a contribution to the federal universal service fund equal to more than 10% of its interstate and international end user revenues. We understand the importance of universal service to our society. Today, however, the universal service contribution requirement has created a substantial amount of “regulatory arbitrage” by providers of VoIP. Carriers attempting to gain a competitive advantage seek to exploit the lack of clear policy on the regulation of VoIP, which, in turn, leads to an irrational application of universal service fees to some and not to others. This situation should be remedied so that all telephone service providers contribute to the universal service fund on the same basis, without regard to arcane and irrational differences in their regulatory classification.

XO also supports obligations to ensure E-911 services are available and accessible at all times, regardless of the provider. Providers of IP-enabled services must also look at providing access for the disabled. In addition, given the current national security environment in which we find ourselves, CALEA obligations are vital for law enforcement and homeland security. Finally, a just intercarrier compensation scheme is necessary to ensure no one provider is either overburdened or “riding free” when providing these services. If the facilities of a local carrier are accessed, compensation should be due.

While the FCC has open proceedings and summits to work on addressing these issues, it is important that any legislation that seeks to amend significant portions of the 1996 Act

consider all ramifications and provide sufficient guidance so that clarity, investment, competition, and innovation can continue in the telecommunications industry – bringing even more exciting and competitive products to the consumer. I know that bills have been introduced by Representative Pickering and Representatives Stearns and Boucher on this issue. I thank them for their leadership and willingness to highlight the exact issues that we must debate.

Again, Mr. Chairman, I thank you for the opportunity to provide XO's views on IP Enabled Services and look forward to working with the Subcommittee on these important issues.